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AND STATE JOURNAL OF AGRICULTURE

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VOLUME XX.

"PRACTICE WITH THEORY AND SCIENCE!"

NUMBER 39

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THE DETROIT EXPOSITION!

Close of the Great Show.

It Was a Great Success in Every Way.

As we write this the last hours of the Detroit Exposition are approaching, and already the exhibitors are preparing to pack up and leave the grounds. Now that the show is over it may be said that it has proved an unequalled success. The exhibition has been well worthy of patronage, and has received very liberal support from the public. Perhaps there never was an exhibition of equal magnitude brought to such a successful conclusion in the very short space of time which could be utilized by its organizers and managers. The smoothness with which it has been run, and the general good feeling prevailing among exhibitors and visitors at the treatment received, is a positive proof that the management has been excellent.

There are of course some points which

exhibition has shown could be improved upon another year, and no doubt these have already been considered by the officers of the Association. We make one or two suggestions regarding those departments of the exhibition in which the FARMER is most interested. The first suggestion is that judging in the various classes of farm products be got through early, and that thereafter the names of exhibitors, with cards giving the awards made them, be placed on the various exhibits. This would have added much interest to the fine fruit exhibit, and given exhibitors due credit for what they had done. By judging early the awards would be made while the fruit was in good condition and some idea of its quality gained, which was not the case with certain perishable fruits this year. Then fruit exhibitors should send a sufficient quantity to renew exhibits of those which will only keep a few days after maturity. Cold storage could be provided for those not on exhibition. In the live stock departments the greatest drawback always experienced is in the lack of suitable judges. Upon the whole the Exposition managers were lucky in securing capable men; but there were some exasperating exceptions, the Merino sheep classes furnishing one. There is no doubt but that the management thought the judges selected capable and honest, and there is no doubt he did the best he could. It is rather hard on exhibitors to subject their animals to the judgment of a man whose every movement proclaimed him a novice, and who gripped the shoulder, loin and leg as if he was judging the entire animal on their mutual qualities, in many instances never opening a fleece or turning the animals down to see how they were covered. Veteran breeders stood around and watched this performance with wonder. The judge even went so far as to pluck locks of wool from some of the animals on the plea of examining the staple, but of the quality of which he appeared to be incapable of judging. The Merino class of sheep is really the most difficult to judge of any domestic animal, and it requires long experience, careful observation and a world of patience to become an expert. Let us hope another year will show a marked improvement in this class, for a second failure would result in breeders withdrawing altogether. This was the only class of stock where there was anything like general dissatisfaction with the work of the judge.

We this week give in full the awards on horses, which will be found on our second page; also the awards on cattle, which are given below. These on sheep and hogs will be given next week. In this connection we wish to correct an error in the list of premiums on horses. The medal awarded George E. Brown & Co., of Aurora, Ill., was for the imported Cleveland Bay G Lester and four of his get. The awards on cattle were as follows:

CLAS 13, SHORTHORNS.

Graded herds: First, Thomas Nelson & Sons; second, Allen Varner & Sons; third, Abram & Baker.

Young herd—First, Thomas Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Best male—First, Thomas Nelson & Sons; second, James Turner; third, Allen Varner & Baker.

Bull, 2 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Best female: First, Thomas Nelson & Sons; second, James Turner; third, Allen Varner & Baker.

Bull, 3 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 1 year old: First, Frank Nelson & Sons; second, James Turner; third, Allen Varner & Baker.

Heifer, 2 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 3 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Allen Varner & Baker.

Heifer, 4 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 5 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 6 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 7 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 8 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 9 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 10 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 11 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 12 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 13 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 14 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 15 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 16 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 17 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 18 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 19 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 20 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 21 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 22 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 23 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 24 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 25 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 26 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 27 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 28 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 29 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 30 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 31 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 32 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 33 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

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Heifer, 39 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 40 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 41 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 42 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 43 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

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Heifer, 70 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 71 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 72 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 73 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 74 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 75 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

Heifer, 76 years old: First, Frank Nelson & Sons; second, Abram & Baker; third, Fred A. Baker.

The Horse.

THE WINNERS.

List of Awards in the Horse Department of the Exposition.

The awarding of premiums in the horse department was completed on Wednesday; below we give the list of the winners. In making the awards class four was divided into two classes, Coach Horses and Cleveland Bays. Class seven was also divided into two, Shetland ponies and Exmoors.

CLASS 1, STANDARD BREED HORSES.

Stallion and four of his get: First premium, H. L. Thomas, of Joliet; second, William Willett, of Portland; R. G. Hart, of Lapeer; third, Stallion, 3 years old: First, J. B. Hulson, of Toledo; second, Thomas M. Moe, of Detroit; third, Alfred C. Smith, of Toledo.

Stallion, 2 years old: First, premium, H. L. Thomas, of Joliet; second, S. A. Brown & Co.; third, Charles C. Davis, of Milwaukee; fourth, James McVittie, of Utica; fifth, Alfred F. Wilcox, of Detroit.

Stallion, 1 year old: First, H. L. Thomas; second, and third, S. A. Brown & Co.; fourth, W. J. G. Davis, of Utica.

Care, 3 years old and over: First, S. A. Brown & Co.; second, H. L. Thomas; third, S. A. Brown & Co.; fourth, H. L. Thomas; fifth, W. J. G. Davis.

Mare, 3 years old: First, premium, S. A. Brown & Co.; second, H. L. Thomas; third, E. H. Palmer.

Mare, 2 years old: First, Harry C. Davis, of Utica.

Mare, 1 year old: First, H. L. Thomas; second, S. A. Brown & Co.; third, Charles Rowe.

CLASS 2, THOROUGHBREDS.

Stallion, 4 years old and over: First and third, E. S. Pier, of Mt. Morris; N.Y.; second, John A. Logan, Jr., of Youngstown, O.; fourth, Robert McRae, of Brooklyn; Out; fifth, Brookside Farm Co., of Utica.

Stallion, 3 years old: First, John A. Logan, Jr.

Mare, 3 years old and over: First, John A. Logan, Jr.

CLASS 3, HACKNEYS.

Stallion, 4 years old and over: First, John A. Logan, Jr.

Mare, 3 years old and over: First, John A. Logan, Jr.

Mare, 2 years old: First, John A. Logan, Jr.

CLASS 4, COACH HORSES.

Stallion, 4 years old and over: First, H. E. Wilcox, of Brooklyn; second, F. W. Dickie, of Marshall; third, Savage & Farnum, Gross Islet; fourth, F. S. Pier, fifth, Gaston Boys, of Detroit.

Stallion, 3 years old: First, John A. Logan, Jr.

Mare, 3 years old and over: First, John A. Logan, Jr.

Mare, 2 years old: First, John A. Logan, Jr.

Mare, 1 year old: First, John A. Logan, Jr.

CLASS 5, CLEVERSDALE SHIRES AND OTHER ENGLISH DRAFT BREEDS.

Stallion and four of his get: First, George E. Brown; second, John McMillan & Sons, Concord, N.H.

Stallion, 4 years old and over: First, George E. Brown; second, Robert M. Ewan, Boston; third, and fourth, George E. Brown.

Stallion, 3 years old: First and second, John McMillan & Sons; third, Cleveland Bay Horse Co.

Mare, 3 years old and over: First, Cleveland Bay Horse Co.

Mare, 2 years old: First, George E. Brown; second, Cleveland Bay Horse Co., Paw Paw.

Mare, 1 year old: First, and second, George E. Brown; third, Cleveland Bay Horse Co.

Mare, 4 years old and over: First, George E. Brown; second, E. H. Palmer.

Mare, 3 years old: First, H. E. Wilcox.

Savage & Farnum were awarded a diploma for French coach stallion and four of his get.

CLASS 4, CLEVELAND BAYS.

Stallion, 4 years old and over: First, George E. Brown; second, E. H. Palmer.

Stallion, 3 years old: First, George E. Brown; second, E. H. Palmer.

Stallion, 2 years old: First, George E. Brown; second, E. H. Palmer.

Stallion, 1 year old: First, George E. Brown; second, E. H. Palmer.

Mare, 4 years old and over: First, George E. Brown; second, E. H. Palmer.

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Sept. 28, 1889.

THE MICHIGAN FARMER.

3

Horticultural.**SPRAYING WITH THE ARSENITES.**

The Agricultural College of Michigan Experiment Station—Bulletin No. 53.

Nine years ago, at the first meeting of this society, I presented a paper upon the use of Paris green as a specific against the codling moth.

In this paper I gave the results of careful and elaborate experiments, which settled two facts which were very important in economic entomology: First, that Paris green was efficient as a preventive of the ravages of the codling larva; and secondly, that such use was entirely safe in respect to poisoning the fruit. To-day, less than a decade from the date of the discovery of this remedy, this method to combat the worst insect pest of the apple grower is generally adopted by the more intelligent orchardists of our country. Its value is now universally conceded. Easy and cheap methods to apply the insecticide are now known and generally adopted.

For several years myself and others have been experimenting, in hopes to find that this same insecticide was equally efficient to destroy the plum curculio. For six or seven years I have sprayed plum trees once and even twice with no apparent good. Test trees, close beside the trees sprayed, and that were not treated, were as free from attack as were the trees that were sprayed, and the trees treated were no more exempt from attack than the others. Thus I was convinced that this insecticide was of no value in this curculio warfare. Several of my horticultural friends, in whose ability to experiment and observe correctly I had great confidence, had tried this remedy with very satisfactory results. In 1888 I studied this matter very closely, and concluded that as the plum is a smooth fruit, with no calyx cup like that of the apple, in which the poison may lodge, and as the curculio lays its egg anywhere on the smooth rind, the poison would be very easily washed off, or even blown off by the wind. I thus concluded that my want of success was very likely due to a want of thoroughness. In 1888 I sprayed certain trees three times, at intervals of eight days, and omitted to treat other trees close along side. The benefit from spraying was very marked.

I also found that carbolic plaster—one pint of crude carbolic acid to fifty pounds of plaster—was quite as efficient to repel the curculio as were the arsenites. This was also applied three times. The season was very dry, and there were few or no rains to wash off the insecticides. This year I repeated the experiments both with the London purple and with the carbolic plaster, but with no success. All the trees were severely attacked, and all the plums lost. This year we had almost daily rains, which were frequently quite severe.

I believe I am warranted in the following conclusions: The arsenites, and carbolic plaster will protect against the plum curculio if they can be kept on the tree or fruit. But in case of very frequent rains the spraying method will not only be cheaper, but much more effective. Again, as our wild fruits are more cleared away we must have plums in our orchards to protect the apples from the curculio. When apples are seriously stung they become so gnarled and deformed as to be worthless. It will pay, then, to set plum trees near by or among the apple trees. Then we will escape mischief among our apples from the curculio, and will only need to spray our apples once, to destroy the codling moth, and can treat the plum trees three or four times with Paris green or carbolic plaster in case we have only occasional showers, or jar the trees when the rains are very frequent. For the apples we can use London purple, one pound to 300 gallons of water. For the plums we must use Paris green, one pound to two or three hundred gallons of water. If the carbolic plaster is preferred, we use one pint of crude carbolic acid to fifty pounds of plaster. This is thrown freely over the trees, so as to strike every plum on the tree, which is being treated.

Another very important practical point has been suggested by the past season's experience with these insecticides. I refer to the danger of applying them before the blossoms fall. Bees are quite as susceptible to these poisons as are the codling larva and curculio. In their good work of collecting nectar and fertilizing the blossoms, they are very certain to take the poison as well, if the trees have been sprayed. Of course there is no excuse for spraying so early a date, as neither the curculio or codling larva commence their attack till the blossoms fall. Thus for the object in mind, as well as for the safety of the bees, delay should be insisted upon. I think we as scientists and all educated men should pronounce vehemently and with one voice against spraying our fruit trees with the arsenites till the blossoms have all fallen. We should even go farther: We should secure the enactment of laws which would visit any such offense with fine and imprisonment. Such laws would prove a ready and active educator.

In the past season, many beekeepers have lost severely from the neglect of their fruit growing neighbors to observe this caution. I will only mention two cases: Mr. John G. Smith, Barry, Illinois, writes: "One of my neighbors owning an orchard of about one hundred acres of apple trees, sprayed the trees with Paris green and water just as they were in full bloom. The result is that ten or twelve beekeepers are ruined." The image no less than the larva and pupa were destroyed. Mr. J. A. Pearce, Grand Rapids, Mich., was also a heavy loser from the same cause. His bees likewise died in all stages of development.

It is well to remember and to urge that this loss is not confined to the beekeeper, for the fruitgrower as well as the apiculturist needs the bees and their work to insure his success. It only requires, then, that our people know the truth, to insure against loss in this direction.

INJURY TO THE FOLIAGE.

Another practical question of no small moment in this use of the arsenites refers to injury to the foliage of the trees treated. In an elaborate series of experiments the past season, we desired to learn the effect on different trees of the different arsenites, and whether the date of treatment and atmos-

pheric condition had any influence. A tabulated statement of the result of the experiments upon various trees at different date is given, from which the following conclusions are drawn:

First, London purple is more injurious to the foliage than is Paris green; and white arsenic—arsenious acid—is more harmful than is either London purple or Paris green. This is doubtless owing to the soluble arsenic which is quite abundant in London purple, and almost absent in Paris green. It was noticed that the colored water after London purple fully settles is very destructive to foliage, while aniline is not at all harmful. This agrees with the experiments of Prof. C. P. Gillette, made in 1888, where white arsenic was found very destructive to foliage.

Secondly, peach foliage is especially susceptible to injury, and cherry foliage the least so of any of the kinds treated.

Thirdly, it would seem that London purple and white arsenic, used just before a rain, are more harmful than when used during a drought. We not only saw greater injury when a rain followed spraying in two or three days, but secured the same results by spraying soon after treatment, with pure water. This also accords with the view that the injury comes from the presence of soluble arsenic.

Fourthly, it would seem that spraying soon after the foliage puts out, is less harmful than when it is delayed a few days, or even a few weeks. For ten years I have sprayed both apple and plum trees in May, and for several years with London purple; and often used a mixture as strong as one pound to one hundred, or even fifty gallons of water. Yet in most cases no damage was done. This year I sprayed several trees in May, using one pound to one hundred gallons of water with no damage. In June and July spraying the same trees with a mixture only one half as strong did no slight injury. The fact, if it be, accounts for the few reports of injury in the past, even with a stronger mixture, and the frequent reports of damage within a year or two, even with a dilute mixture. Then the spraying was confined to May; now it reaches to June, or even to July.

Fifthly, London purple may be used on apple, plum, cherry, pear, and most ornamental trees, but on these should never be stronger than one pound to two hundred gallons of water. If the application is to be repeated, as it must be for the curculio, to prove effective, or if it is to be used in June or July, Paris green should be used, in the same proportion as above, or else we should only use one pound of London purple to three hundred gallons of water. I now think that this necessity is due more to the time of application than to the fact of increased quantity of the poison.

Sixthly, if the arsenites are to be used on the peach, to defend against the curculio, Paris green only should be used, and that not stronger than one pound to three hundred gallons of water. With the peach the poison is not only absorbed, coloring the tissue purple or brown, but even the petiole or stem of the leaf is weakened, and the leaf falls. Thus in several cases where we used London purple, one pound to two hundred gallons of water, or white arsenic, the peach leaves all fell off. White arsenic colors the tissue the same as does the London purple, showing once more that it is the soluble arsenic, not aniline, that does the mischief.

Seventhly, the injury done to the foliage is never immediately apparent. It usually shows somewhat the second day, but the full injury is frequently not manifest till the fifth day, and often not till the tenth.

Poisoning the Pasture Under the Trees.

The Jackson Patriot gives the following description of the process of raising celery at "Spring Brook Farm" in Summit Township, Jackson Co., by Messrs. Loud & Keyser. Mr. Loud, formerly of Chicago, bought the farm about six years ago, and upon looking it over he found some thirty or forty acres suitable for the propagation of celery. He at once set at work preparing the grounds under the supervision of L. P. Keyser, of Tecumseh, a gentleman of considerable experience in celery growing, and last season raised a large supply which found a ready market, but on account of the dry weather the stalks were short and consequently the prices were low and the crop a rather unprofitable one. This year Messrs. Loud & Keyser decided to raise nothing but the best White Pionne variety and to make it grow so as to attain the highest degree of excellence and bring the very highest prices.

To prevent a repetition of the damage caused by drought they adopted a novel system of irrigation which has proved a great success. On the west side of their celery field there is a large, never failing spring of water, the waste from which feeds a small lake by. From this lake an outlet in the shape of a ditch has been dug through the field, in which flames have been placed at intervals for the purpose of holding the water back. From this ditch drain tiles have been laid all through the field and when the flames are closed the water backs up into the tiles and filters through, keeping the ground moist all the time. The amount of water needed is regulated at the flames.

In one tree a thick paper was placed under one-half of a rather small apple tree. The space covered was six by twelve feet, or seventy-two square feet. The paper was left till all dripping ceased. As the day was quite windy the dripping was rather excessive. In this case every particle of the poison that fell from the tree was caught on the paper. Dr. R. C. Kedzie analyzed the poison and found four-tenths (.4) of a grain. Tree No. 2 was a large tree with very thick foliage. Underneath this tree was a thick carpet of clover, blue grass and timothy just in bloom. The space covered by the tree was fully sixteen feet square, or equal to two hundred and fifty-six square feet. As soon as all dripping had ceased, the grass under the tree was all cut, very gently and very close to the ground. This was taken to the chemical laboratory and analyzed by Dr. R. C. Kedzie. There was found 2.3 grains of arsenic. Now as our authorities say that one grain is a poisonous dose for a dog, two for a man, ten for a cow, and twenty for a horse, there would seem to be small danger from pasturing our orchards during and immediately after spraying, especially as no animal would eat the sprayed grass exclusively. To test this fully, I sprayed a large tree over some bright tender grass and clover. I then cut the clover carefully, close to the ground, and fed it all to my horse. It was all eaten up in an hour or two, and the horse showed no signs of any injury. This mixture, remember, was of double the proper strength, was applied very thoroughly, and all the grass fed to and eaten by the horse. This experiment was repeated with the same result. I next secured three sheep. These were kept till hungry, then put into a pen about a tree under which was rich, juicy June grass and clover. The sheep soon ate the grass, yet

showed no signs of any injury. This experiment was repeated twice with the same result. It seems to me that these experiments are crucial and settle the matter fully. The analyses show that there is no danger, the experiments confirm the conclusion.

Thus we have it demonstrated that the arsenites are effective against the codling moth, that in their use there is no danger of poisoning the fruit, and when used properly no danger to the foliage or to stock that may be pastured in the orchard.

August 17, 1889. A. J. COOK.

Chas. A. Green's Opinion of Wilder Early Pear.

My attention was called to the Wilder Early pear about six years ago. Since the grafts on the original tree came into bearing, this pear has borne heavy crops of beautiful specimens of fruit every season. I know of no other which bears so early and so regularly, every year.

Every year the fruit of Wilder Early has been shipped east, west, north and south, two hundred to one thousand miles, arriving in perfect condition, proving that it will bear shipment better than any early pear known. It can be picked when as hard as stone, and can then be kept from two to three weeks in an ordinary room, when it turns to a golden hue, with bright red cheek, and though yet firm, melts in the mouth and delights the palate, as does no other pear at this time.

It is one of the earliest of all early pears to ripen, about with the Summer Doyenne and Alexander peach, and before the early apples, at a date when no good pear is offered on the market. Therefore it will sell at a fancy price for fruit stands.

There is no early pear to compete with it. Gifford comes nearest to being a rival, but Gifford is such a poor, struggling grower, no nurseryman can afford to grow the trees, therefore it is unattainable and is not a rival. A good growing, good keeping, good shipping, superior flavored early pear is what is needed at this moment in our homes and on the market, and the Wilder Early appears to fill the bill.

As a vigorous grower the Wilder Early is unsurpassed. Last season the trees grew from the bud, in six months, to seven feet high, as thick as my thumb and as straight as a ramrod. There were no crooked trees in the rows. It grows like the Buffum or Keiffer. It holds its foliage and is thus far from slight or other disease. It ripens its wood early and is perfectly hardy here. While not a large pear, Wilder Early is twice the size of Seckel as ordinarily grown, and its great productiveness and early fruiting are unquestioned.

I would enumerate the good points of the Wilder Early pear as follows: 1. Earliness, ripening about August 1st. 2. Superior quality, nothing of its season being so delicious. 3. Not rotting at the core. We have kept it for weeks in a warm room, and never saw one rot at the core; yet this is the weak spot in nearly all early pears. 4. Long keeping and superior shipping qualifications. 5. Great beauty and productiveness, bearing every year and on young trees. 6. Great vigor, often growing six to seven feet from the bud in one season. 7. Hardiness and strong constitution, which enable it to thrive and endure neglect where many other varieties would prove a failure. Small, meaty core, with few seeds. The core is eaten and is as delicious as any other part. No one would waste the core of the Wilder Early.—Orange County Farmer.

A Jackson Celery Garden.

The Jackson Patriot gives the following description of the process of raising celery at "Spring Brook Farm" in Summit Township, Jackson Co., by Messrs. Loud & Keyser. Mr. Loud, formerly of Chicago, bought the farm about six years ago, and upon looking it over he found some thirty or forty acres suitable for the propagation of celery. He at once set at work preparing the grounds under the supervision of L. P. Keyser, of Tecumseh, a gentleman of considerable experience in celery growing, and last season raised a large supply which found a ready market, but on account of the dry weather the stalks were short and consequently the prices were low and the crop a rather unprofitable one. This year Messrs. Loud & Keyser decided to raise nothing but the best White Pionne variety and to make it grow so as to attain the highest degree of

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Saving Flower Seeds.

A large part of the flower-loving people, probably, take no account of seed-saving, and depend each year upon the seedmen for their supply of flowers. This is, perhaps, just as well, provided care is taken to select only from the best. Choice improved varieties of almost anything have lost some of their seed-producing qualities by artificial growth or cultivation; hence, the best varieties of flowers are always the highest in price. Besides, it takes time in the selection; all of which goes to make up the cost at which a thing can be put upon the market. A seed-raiser roots out all poor specimens from his beds as they show themselves, so that crosses from poor flowers do not occur. If any new color, size, quality or other peculiarity worthy of perpetuating is observable, the seed is saved separately from those which are not. This is the best way of getting a vine into a tree. It will be a slow process to plant a vine at the root of an established tree and train it up. The proper way is to plant it at some distance from the tree and grow it on a stake until the end of the second year. By that time one should have a vine six or eight feet high. It may then be trained into the branches, after which it will take care of itself. It will grow very rapidly until it reaches the top. While growing fast it will develop few fruit buds, but when it can go no higher, and must grow horizontally, if at all, will bear abundantly.

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MICHIGAN FARMER

DETROIT, SATURDAY, SEPT. 28, 1889.

This Paper is Entered at the Detroit Post-Office as second class matter.

STOCK SALES IN MICHIGAN.

The following dates are claimed by Michigan breeders for sales of stock: OCT. 16—Coe Bros., Kalamazoo; Hereford cattle, Merino, and Poland-China swine. J. A. Mann, auctioneer. OCT. 23—W. C. Wixom, of Wixom, Shorthorns. J. A. Mann, auctioneer. OCT. 24—W. H. Bissell, Pewamo, Merino Sheep and Poland-China swine. Sale to be held at Ionia. J. A. Mann, Auctioneer.

WHEAT.

The receipts of wheat in this market the past week amounted to 149,532 bu., against 157,350 bu. the previous week, and 253,143 bu. for corresponding week in 1888. Shipments for the week were 72,309 bu., against 128,142 bu. the previous week, and 240,423 bu. the corresponding week last year. The stocks of wheat now held in this city amount to 223,437 bu., against 191,905 bu. last week, and \$13,353 bu. at the corresponding date in 1888. The visible supply of this grain on Sept. 21 was 17,198,573 bu., against 15,697,455 bu. the previous week, and \$1,011,175 bu. for the corresponding week in 1888. This shows an increase above the amount reported the previous week of 1,499,116 bushels. As compared with a year ago the visible supply shows a decrease of 13,814,603 bu.

The market has been an improving one all week, and there is a substantial gain in values as compared with our last report. This advance is general in both spot and futures, the latter showing the greatest gain. No. 2 red is now higher than No. 1 white. Arrivals are not trading as low as two or three weeks ago, but much lower than a week ago. There was an adjournment of the Board on Thursday to attend the Exposition, hence no prices are quoted for that day. Yesterday the market opened active and higher, but lost the advance before the close. Chicago, New York and St. Louis were also lower than the previous day. Liverpool and London reported strong markets, and the latter was higher.

The following table exhibits the daily closing prices of spot wheat in this market from September 21 to September 27th inclusive:

No. 1	No. 2	No. 3	Red.	White.	Sept. 21	Sept. 22	Sept. 23	Sept. 24	Sept. 25	Sept. 26	Sept. 27
73%	73%	73%	74%	74%	73%	73%	73%	73%	73%	73%	73%
80%	80%	80%	79%	79%	80%	80%	80%	80%	80%	80%	80%
81%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%
83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%
84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%
85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%
87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%
88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
91%	91%	91%	91%	91%	91%	91%	91%	91%	91%	91%	91%
92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%
94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%
95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%
97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%
98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Futures are all higher than a week ago, and have shown more activity. Yesterday there was a slight decline from the supposed range of values of the previous day, but as there was no session of the Board prices were based only on estimates.

The following is a record of the closing prices on the various deals in futures each day during the past week:

Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
73%	73%	80%	81%	82%	83%	84%
80%	80%	81%	81%	82%	83%	84%
81%	81%	81%	81%	82%	83%	84%
81%	81%	81%	81%	82%	83%	84%
82%	82%	82%	82%	83%	84%	85%
83%	83%	83%	83%	84%	85%	86%
84%	84%	84%	84%	85%	86%	87%
85%	85%	85%	85%	86%	87%	88%
86%	86%	86%	86%	87%	88%	89%
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90%	90%	90%	90%	91%	92%	93%
91%	91%	91%	91%	92%	93%	94%
92%	92%	92%	92%	93%	94%	95%
93%	93%	93%	93%	94%	95%	96%
94%	94%	94%	94%	95%	96%	97%
95%	95%	95%	95%	96%	97%	98%
96%	96%	96%	96%	97%	98%	99%
97%	97%	97%	97%	98%	99%	100%

Referring to the big crop reports from Dakota, a gentleman of Detroit who cultivates 1,000 acres near Bismarck in that territory and has just returned from there says that wheat was too short to be cut with a machine; that after cutting he offered to sell the lot for 600 bushels in a lump, whereas a year ago he harvested 9,000 bu. from the 1,000 acres. The same party says his yield is not an uncommon one this year, and he believes that vast tracts of land in the territory will not average one bu. per acre.

The quantity of wheat on ocean passage is about 8,000,000 bu. less than at the corresponding time last year. The visible supply in this country is much less, with only a small part of it grading as No. 2. The crop statistician at Washington is quoted as saying that the wheat crop of Europe is 10 per cent short of being a full one. This means at least 130,000,000 bu. of a shortage as compared with last year, and is a big deficit, though not so large as the earliest reported shortage obtained from the figures submitted to the Vienna Congress. The government crop report for Canada makes the crop of that country 6,000,000 bu. less than indicated by the July report, and 8,500,000 bu. less than the average for 1882 to 1888 inclusive.

Dombasch estimates that Europe will require to import during this crop year the equivalent of 23,000,000 bu. wheat.

Minnesota flour has been advanced 15c per bbl.

The following table shows the quantity

of wheat "in sight" at the dates named, in the United States, Canada, and on passage to Great Britain and the Continent of Europe:

	Sept. 1	Sept. 2	Sept. 3	Sept. 4	Sept. 5	Sept. 6	Sept. 7	Sept. 8
United States	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232
On passage for United Kingdom	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150
On passage for Continent of Europe	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150	3,004,150
Total	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232	14,086,232

Total bushels Sept. 7, 1888. 31,110,023

Total previous week. 32,023,716

Total two weeks ago. 30,813,590

Total Sept. 8, 1888. 31,013,590

The estimated receipts of foreign and home-grown wheat in the English markets for the week ending September 14 were 44,200 bu. more than the estimated consumption; and for the eight weeks ending August 31 the receipts are estimated to have been 260,824 bu. more than the consumption. The receipts show an increase for those eight weeks of 3,177,632 bu. as compared with the corresponding eight weeks in 1888.

The exports of butter from New York

since May 1, 1888. 1,017,883

Same time last year. 2,821,518

Exports. 515,046

Same week 1888. 326,790

Since May 1, 1889. 0,017,883

Same time last year. 2,821,518

Western Creamery, fancy. 100

Elgin creamery, fancy. 25

Western imitation cream

Sept. 28, 1889.

Poetry.

AUTUMN DREAMS.

When the maple turns to crimson,
And the sassafras to gold;
When the gantin's in the meadow;
And the aster on the wold;
When the moon is lapped in vapor,
And the night is frosty cold;

When the chestnut burs are opened,
And the acorns drop like hail,
And the drowsy air is startled;
With the thumping of the fall—
With the drumming of the partridge,
And the whistle of the quail;

Through the rustling woods I wander,
Through the jewels of the rear,
From the yellow uplands calling;
Seeking her who still is dear:
She is near me in the autumn,
She, the beautiful, is near.

Through the smoke of burning summer,
When the weary wings are still,
I can see her in the valley,
I can hear her on the hill,
In the splendor of the woodlands,
In the wail of the will.

For the shores of earth and heaven
Meet, and mingle in the blue;
She can wander down the glory
To the places that she knew,
Where the happy lovers wandered
In the days when life was true.

So I think when days are sweetest,
And the world is wholly fair,
She may sometimes steal upon me,
Through the dimness of the air,
With the cross upon her bosom,
And the amaranth in her hair.

Oaks to meet her, ah! to meet her,
And to hold her gently fast,
Till I blessed her, till she blessed me—
That were happiness at last.
That were bliss beyond our meetings
In the autumn of the past.

—Raymond Taylor.

A BRIDE'S LETTER.

Dear Helen, you will be surprised
To see how soon—the first
Bridal edition, unreviewed—
And scribbled at my very worst.
T've but a pencil, as you see,
A leaf from Harry's diary torn,
And then I'm writing on my knee,
And feel a little bit forlorn.

We're on the train still. I'm alone;
Harry is in the smoking car.
These last two hours. My time's my own;
But, Helen dear, how strange men are!

Three days ago—time quickly flies—
And yet somehow seems like years—
Since all the kisses and good byes.
And all the trembling hopes and fears.

Of course he likes to smoke; but then
You ways used to say, you know,
Women were different from men.
Ah, yes, indeed! I find it so.

Most of my dreams seem disarranged;
Of course I'm happy; only life
Looks altered now—the world is changed—
I can't believe I'm Harry's wife.

And yet I know I am, for here
(What tiny thorns one's wreath may mar!)
I'm sitting quite alone, my dear,
And he—is in the smoking car.

Miscellaneous.

"PERSONALLY OR BY LETTER."

I am afraid I treated my brother Leo very shabbily. As soon as he had settled down at Wymar, where he was managing the new coal-mine, and had built a pretty little cottage in the settlement there, he sent over for me to come and occupy it, and expected, I suppose, that I should keep house for him till his fortune was made and we could return to old England together. He forgot that out in Queensland a marriagable young lady is a very valuable and much-sought-after article. I had not been at Wymar three weeks before I had half a dozen suitors. One of them—George Stewart, who had a sheep farm six or seven miles away—seemed quite as lonely as Leo, and he had a cottage waiting for me much prettier than my brothers'; so after I had kept house for Leo for about six months, I changed my name, and residence, and went over to Stewart Farm.

George did the best he could for Leo. He gave him, in exchange for me, his servant, a half-witted Irishman who was warranted to wash, sew, and cook, as well as to look after a horse and a garden; but he was far too inventive and ingenious a cook for Leo's taste, and, as for sewing, he did not know how to use a thimble. Though I suppose it was complimentary to me, still I was very uneasy when I found how thoroughly disinterested Leo was with the change.

One evening he rode over to the farm, as he often did, about sunset. We were sitting out in the porch. George and I, and went to the gate to meet him and put up his horse.

"That Mike again?" Leo began as soon as he had greeted us, and would say no more till we were all seated in the porch together.

"Oh, that Mike!" he exclaimed again.

"Well, what is the matter this time?" asked George. "More original cookery?"

"No," groaned Leo; "he is gone!"

"Gone?" ejaculated George and I together.

"Yes, I wanted one of my best linen shirts, and I found he had cut it up into pocket-handkerchiefs; and very proud he was of it, too. And I'm afraid I must have discouraged him, because he has disappeared."

"That is a pity," said my husband, seriously; "he was an honest fellow and well-meaning—if he did get into a few mud-sills."

"Yes," answered Leo, "I am very sorry. It is not that I miss the man—I am very glad to be rid of him; but the gold watch my father gave me and a few more things have gone, too. I am sorry I discouraged him."

My husband could not help laughing, but I was very indignant at the theft of the watch.

"Look here," said Leo at last, "I want my sister back. Remember, it was a bargain. You gave me that atrocious old dunderhead of an Irishman for her, on the understanding, of course, that he would stay with me. He is gone. Naturally I take Mary back again to keep house for me."

"But I can not spare her," returned George, putting his arm around me with an air of proprietorship, "can I, old girl?"

Look here, Leo—you must get married yourself."

"Yes," I said, "get a wife for yourself, Leo."

"Hear, hear!" cried my brother, springing to his feet. "I am so glad that is your opinion, because I proposed yesterday!"

"Proposed?" exclaimed George and I. There was not a marriageable woman that we knew of for fifty miles round.

"For goodness' sake tell me to whom?" I inquired.

"Oh, you need not be frightened," he returned. "I'm not going to marry a native or the old hag who keeps the dram-shop. I have written home for her."

"For whom?"

"Dolly!"

"Dolly Devay? Good gracious! But you were never engaged, were you?"

"No; but I was always very fond of her. She can cook and sew, I feel certain; and I know she was very fond of me."

"But what did you say to her?" I gasped.

"Oh, I had never given a thought to any girl since I left her—"

"Especially as you have scarcely seen one," interposed George.

Leo went on without noticing the interruption.

"I said I wanted a wife, and asked her if she would come out here and marry me; I would meet her at Brisbane, and get the thing done straight off before coming on here, where we should live happily ever afterwards."

"Oh!" exclaimed George, whistling. "Is that all?"

"Oh, no! I sent her a piece of poetry that I am sure will bring her. I made it up for the occasion. Here is the first verse:—

"Hand in hand, little children, together,
We played where the breeze of the moorland
Shook all the bells of the heather,
Little sweetheart, do you remember?

The bells are all withered,

The heather is black,

And I am come back,

Is it hand in hand still, little sweetheart?

Is it hand in hand, darling, forever?"

"Funny metre!" grunted George.

"And there never was any heather at Bloxham, where you saw Dolly," I objected.

"No, it was stabbled fields chiefly; but 'stubble' does not sound romantic enough. It is poetic license, you know."

"And you are not going back," said my brother.

"Poetic license!" ejaculated Leo again.

"She will never come!" I declared emphatically.

"I don't expect she will; but it is worth trying. There is not a girl in my place except the little Brown; and I can't wait eight years till they grow up. Just my luck—the only marriageable young woman ever imported was my own sister! But I do not see why Dolly should not come, he went on.

George and Leo had formed a court in front of the house, and Leo had sent to on Brisbane for an outfit. If it had not been for tennis, I should never have seen my brother; all this time would have been devoted to teaching Amy to ride.

I could not help thinking about the letter to Dolly Devay, which Leo seemed to have forgotten altogether. When I reminded him of it once, he laughed and said:

"It was a letter he had received from England. I answered, and then paused. Oh, what a task Leo had given me! How could I perform it?" That is what has taken him to Brisbane," he went on, wondering what I should say next. "The letter was sent by a young lady whom we used to know in England."

I glanced at Amy's face to see how I was getting on, but she was not listening to what I said.

"Hark!" she exclaimed, suddenly standing still; "there is a horse galloping home! Perhaps it is your brother."

We were almost exactly at the same spot where Leo had heard her horse on the day we first saw her. The scene was strangely similar, though this time it was Amy who was with me. We both strained our ears to catch the sound.

"It cannot be Leo," I said; "he will not come on here."

But the next moment Leo himself appeared, galloping toward us to disprove my statement. He sprang from his horse and greeted us quite enthusiastically, evidently in radiant spirits. I wondered what could have happened. As long as Amy was with us my anxious curiosity could not be satisfied. I was in a fever of impatience as we walked up to the house together, Leo leading his horse.

As soon as we were indoors and he had gone to his room to change his dress after the journey, I hurried after him and knocked at his door.

"Come in!" he said, cheerfully.

"What has happened?" I inquired, when I had shut the door behind me. "Hasn't she come?"

"Oh, yes—she came all right!"

"Oh, no!" he answered; "not so bad as that! She is only married!"

"Married?"

"Yes, the captain fell in love with her on the way out. Now I remember, she always was a flirt!"

"And pray what did she say to you?"

"Oh, she was very frightened, and did not want to see me; but I promised to forgive her if she would vow never to tell anybody about my letter."

I thanked him, and, taking the letter, glanced at the address; it was written in a woman's hand, and I felt certain it was the reply I had been expecting so anxiously. What would happen if Leo received two promises of marriage on the same day?

I decided at once that he ought at least to read this letter before I said anything to Amy, so I blew as loudly as I could a whistle George had given me to call him with—I could never manage the Australian "cooey."

Leo came almost directly—he could not have been far away.

"This is too bad, Mary!" he said. "I must not have come but that I thought you must be attacked by bushrangers or have set the house on fire. You have just spoilt it."

I did not answer him, but put the letter into his hand. He tore open the envelope, unfolded the paper inside, and glanced down at his face flushing crimson and then turning deathly pale as he did so.

"Bess is coming in at a gallop."

"The voice of his voice and his manner made me apprehensive of danger."

"It is not a runaway?" I asked in alarm.

"It is a runaway," returned Leo.

Leo laughed to reassure me.

"Keep calm, little woman," he said, tak-

ing off his coat and hat as he spoke, ready for action.

The next moment a horse galloped round the curve of the bridle-path, with a slight figure swaying in the saddle and leaning forward on the excited animal's neck. It passed me as I drew back into the bushes, but Leo sprang into the road, and, running with the horse, seized the bridle with both hands, putting his arm around the girl to do so. For a moment he looked a comical figure—at which, however, I felt not the slightest inclination to laugh—as he ran along by the side of the horse, pulling with all his might at the reins. Then Bess, feeling a strong and familiar arm restraining her, cooled down and rode exultingly.

"May I read the letter?" I asked. Leo was holding it crumpled up in his clenched hand, but gave it to me at once.

It was a sweet little letter. Dolly had always loved him; she said, ever since she had known him; but, when he left England without speaking, she was afraid he would feel toward her was only one of friendship; she did not know how nobly he had determined to make a home before asking her to be his wife; and so on—very prettily put indeed. Dolly concluded by saying that she would arrive at Brisbane about week after her letter.

"There is only one thing you can do, Leo," I said.

"Dolly?"

"Dolly Devay? Good gracious! But you were never engaged, were you?"

"No; but I was always very fond of her. She can cook and sew, I feel certain; and I know she was very fond of me."

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WHEN LIFE IS WORTH LIVING.

I am weary of strife and labor,
Of the rivalry cruel and keen,
Where no man takes thought for his neighbor,
And motives are petty and mean.

My brain aches with fruitless endeavor,
And my arm has grown weak in the light;
Just to sit and do nothing forever
Is the task that I long for to-night.

I am tired, disengaged, and lonely;
Life for me has lost all of its zest;
And Heaven, when I die, will be only
A place where a fellow can rest.

* * * * *

What's that old man? Erie's gone higher?
That braces me with a jerk,
Made twenty thou on that fyer,
Now, by jingo, I'm ready to work.

—Somerville Journal.

The Bag Worm and Its Destructive Work—How It Denudes Trees and Shrubbery of Their Foliage. An Insect of New Jersey Origin.

The study of the destructive bag worm is interesting, writes a New Jersey correspondent of the New York Sun. It is known to science as *Thyridopteryx ephemeraeformis*, a formidable name, certainly, but not more so than the pest. The parent insect is a very small moth, the wings of which are semi-transparent and small for the size of the body. The bags which they weave may be seen hanging upon the twigs of trees and bushes. The bags are nearly a perfect oval in shape, and they become gray with exposure to the sun. They are tough, fibrous and coarse. Many of them are empty. These are generally of the male moth, which came forth the previous summer, sought the female at the door of her tent, and, after fecundation, perished. The female is wingless, and she does not leave the cocoon, but produces eggs in such size and number that the body of the mother is completely enveloped in egg-making. If one of the female cocoons be opened by slipping it with sharp scissars, the eggs will be found to be in the same condition as the skin of the shell full of eggs. In early May, if the season be advanced, the eggs hatch, and the little grubs, hardly one-twentieth of an inch in length, leave the old cocoon, or nest, and descend by a silken thread until they find a place where they may begin their work upon the leaves. At first they are too small to make their bags of the leaves, and too weak to cut the foliage into sufficiently small fragments for their home. Their method of making their bags is to be seen in the act of spinning the cocoon, under which they will be very indiscriminately with any fibrous dust, and even minute scales which they can find on the leaf provided for them. The first bags are wonderfully small, but, the architecture never varies. They keep right on feeding and growing, enlarging their bags by cutting off the small and tender leaves and fragments of them until the summer is well on. Carrying its bag, the worm then begins its midsummer pilgrimage until it finds an acceptable small twig, around which it secures the bag for its winter suspension with the aid of a silken thread. The bag is made of silk. This done, as respects the male, a few days of existence in the pupal state suffice, when it emerges a winged moth, and, as stated, soon perishes. The female living on. It is a curious and interesting fact that while the fully-grown caterpillar searches for a suitable twig unto which to attach its cocoon for the winter suspension, it never makes the mistake of selecting the stem of a leaf, as in that case the leaf when shed would expose the grubs to the gulls. These worms may be seen upon the coniferous trees, and the arborvitae and the balsams or spruces are their favorites.

It has been thought, and, indeed, Prof. Lockwood, who has studied the habits of and carefully described the worm, has stated that there is no sure way to get rid of it but hand-picking. It may be remembered that this means was resorted to by the Government in the parks and public places, under the direction of the Commissioner of Fish and Game. The worm, however, contented themselves with the short coat. The short coat costs from \$10 to \$15, depending upon the wealth and rank of the wearer. The lowest priced article is made of coarse silk and is usually blue or black in color.

The short coat sometimes costs \$200, but the variety usually seen on the streets can be bought for from \$5 to \$8. It is made of silk and is often given a waterproof gloss and does double service as coat and umbrella.

The sandal-shaped boots are made of cloth and have soles an inch thick. These soles are fashioned of layers of cotton pressed together, and are as impervious to moisture as sole leather. The tops of the shoes are embroidered, and they sell at from \$1.50 to \$50 a pair.

As none of the coats have sleeves the selection of a suit of cuttinesses is both difficult and entirely wanting. A short undershirt, a short coat that is called *Chin Sien*, or something that sounds like that, and an overcoat known to the initiated as a *Foo Soi Sam*. The boots, however, are clothes enough to deck out the 3,000 Chinamen of New York in holiday attire and keep them in their Sunday clothes for a year.

A Chinaman's everyday outfit is beautiful in its simplicity.

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CHINESE STORE CLOTHES.

A Visit to the Establishment of New York's Pig-Tailed Poole.

There are many Chinese tailor shops in New York. Mott street is filled with them. They are in cellars, where pig-tailed Mongolians sit and watch on three-legged stools, and a pass-word or a detective is needed to pass a stranger from the street. They are in the rear of first-story shops and back rooms, where the tailors sit in winding halls that smell of dried fish, holding birds' nests and frying pigs' tails. The clothes are kept on dingy shelves and in boxes under dark counters, and only form part of the general stock, like nails in a hardware shop. But there is only one Poole in New York, and he has no imitators, says the New York Mail and Express. To imitate our Celestial Poole requires more capital than the average Chinaman possesses. Mr. Poole is known to the business public as *Mei Lee Wa & Co.*, and is familiarly called Mr. Mel by those who have the honor of his personal acquaintance. His place of business is in the Bowery, where he occupies the first floor of the basement of one of the most beautiful buildings under the shadow of the elevated road.

The tailor shop looks as little like the customary clothing store as a Chinese laundry does like a Murray Hill drawing-room. It is a large room filled with tables piled high with goods, and clothing seems to be about the only thing that is not offered for sale. A casual caller might fancy at the door that Mr. Mel kept a tea store. Before he goes twenty feet he would credit him with keeping a crockery store. Another half-dozen paces would change his opinion again, and then he would be sure that he was in the right place. The appearance of the store. On the first floor are kept Chinese wares of all styles and at all prices, from common crockery sets worth \$5 each to a superb red vase valued at \$1,000. On the next row are glassware and square boxes holding tea and spiced herbs. Behind glass cases, against the wall, are knick-knacks in ivory and gilt, worth a week's wages for every square inch of surface. Farther back in the store are laundry goods and the various utensils used by the frugal Mongolians for their daily needs.

The Chinese Poole is a Macy and a Ridder combined. Against the rear wall, which conceals from the barbarian world the living apartments of Mr. Mel and pretty Mrs. Mel, is kept the clothing. It is all made in China and imported in bulk. Here are clothes enough to deck out the 3,000 Chinamen of New York in holiday attire and keep them in their Sunday clothes for a year.

A Chinaman's everyday outfit is beautiful in its simplicity. Their method of making their short coat is to be seen in the act of spinning the cocoon, under which they will be very indiscriminately with any fibrous dust, and even minute scales which they can find on the leaf provided for them. The first bags are wonderfully small, but, the architecture never varies. They keep right on feeding and growing, enlarging their bags by cutting off the small and tender leaves and fragments of them until the summer is well on. Carrying its bag, the worm then begins its midsummer pilgrimage until it finds an acceptable small twig, around which it secures the bag for its winter suspension with the aid of a silken thread. The bag is made of silk. This done, as respects the male, a few days of existence in the pupal state suffice, when it emerges a winged moth, and, as stated, soon perishes. The female living on. It is a curious and interesting fact that while the fully-grown caterpillar searches for a suitable twig unto which to attach its cocoon for the winter suspension, it never makes the mistake of selecting the stem of a leaf, as in that case the leaf when shed would expose the grubs to the gulls. These worms may be seen upon the coniferous trees, and the arborvitae and the balsams or spruces are their favorites.

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The sandal-shaped boots are made of cloth and have soles an inch thick. These soles are fashioned of layers of cotton pressed together, and are as impervious to moisture as sole leather. The tops of the shoes are embroidered, and they sell at from \$1.50 to \$50 a pair.

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As none of the coats have sleeves the selection of a suit of cuttinesses is both difficult and entirely wanting. A short undershirt, a short coat that is called *Chin Sien*, or something that sounds like that, and an overcoat known to the initiated as a *Foo Soi Sam*. The boots, however, are clothes enough to deck out the 3,000 Chinamen of New York in holiday attire and keep them in their Sunday clothes for a year.

A Chinaman's everyday outfit is beautiful in its simplicity.

Their method of making their short coat is to be seen in the act of spinning the cocoon, under which they will be very indiscriminately with any fibrous dust, and even minute scales which they can find on the leaf provided for them. The first bags are wonderfully small, but, the architecture never varies. They keep right on feeding and growing, enlarging their bags by cutting off the small and tender leaves and fragments of them until the summer is well on. Carrying its bag, the worm then begins its midsummer pilgrimage until it finds an acceptable small twig, around which it secures the bag for its winter suspension with the aid of a silken thread. The bag is made of silk. This done, as respects the male, a few days of existence in the pupal state suffice, when it emerges a winged moth, and, as stated, soon perishes. The female living on. It is a curious and interesting fact that while the fully-grown caterpillar searches for a suitable twig unto which to attach its cocoon for the winter suspension, it never makes the mistake of selecting the stem of a leaf, as in that case the leaf when shed would expose the grubs to the gulls. These worms may be seen upon the coniferous trees, and the arborvitae and the balsams or spruces are their favorites.

It has been thought, and, indeed, Prof. Lockwood, who has studied the habits of and carefully described the worm, has stated that there is no sure way to get rid of it but hand-picking. It may be remembered that this means was resorted to by the Government in the parks and public places, under the direction of the Commissioner of Fish and Game. The worm, however, contented themselves with the short coat. The short coat costs from \$10 to \$15, depending upon the wealth and rank of the wearer. The lowest priced article is made of coarse silk and is usually blue or black in color.

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Continued from first page

prevent their rising at all or come to the surface with them. Sudden cooling to a low temperature prevents this fibrin from coagulating, while a warm or summer temperature and stirring or agitation both favor coagulation. The serum of the milk is loaded with casein, albumen and milk sugar, all of which tend to make it thick and viscous, and the cooler they are the more viscous is the milk, making it more difficult for the fat globules to rise through it. Yet this does not seem to interfere so much with the rising of the cream as does the coagulation of the small amount of fibrin. Lactic acid dissolves this coagulum, and the Doctor says: "This action of the acid appears to be the cause of the better yield of butter from ripened cream, as the addition of acid to sweet cream before churning will give as much butter as if the cream were ripened in the natural way." This is the best explanation of the philosophy of ripening cream that has been given—and does it not suggest the use of pure lactic acid in preparing cream for the churn, instead of letting it ferment and develop all sorts of bacteria and destructive microbes? The Doctor remarks: "If a method could be devised for removing this cream from shallow pans without mingling with it the skim-milk, a better creaming should result from the use of ice with such vessels than is obtained in any other way, as the fat globules have but a short distance to rise." This is done by drawing off the milk at the bottom.

Points in Butter Making.

A paper read before the Nebraska Dairy-men's Association, by Mr. F. E. Howe, of Fairmont, contains some points worth noting and emphasizing. One is that the cows must be good ones, have plenty of good feed, and warm shelter in winter, or successful results need not be expected. Poor cows entail a failure to begin with, and poor feed and shelter will prevent the best of cows from giving a satisfactory yield.

Another point is to be regular in milking and cleanly in handling the milk. As the cow is largely a creature of habit, regularity is conducive to a large and steady flow of milk, which will always be of better quality than an irregular flow, for the reason that what causes irregularity will cause a depreciation of quality. As to cleanliness, that is all-important to flavor, which is greatly affected by filth of all kinds. Filth once in the milk cannot be strained out. A little insoluble matter, held mechanically, may be; but the most soluble portion goes into the milk to stay, with all its consequences, which are nothing but evil.

Still another point made is to strain your milk and put it to rest as soon and as warm as possible after it is drawn from the cow. There are no two opinions about this among intelligent dairymen, although the scientists are not agreed as to the philosophy. One says the temperature has the greater distance to fall, the warmer the milk is set, and this gives the advantage, since fat is a poor conductor of heat and therefore does not cool as fast as the other portions of the milk. This makes it relatively still lighter and facilitates its rising. Dr. Babcock says that the lowering of the temperature to 90 degrees or below causes the fibrin in the milk, which he was first to discover, to coagulate, and this entangles the fat globules and prevents their rising. The amount of fibrin, he declares, does not exceed two parts in a thousand and may be less—an amount too small, it would seem, to have an appreciable effect. This, the doctor says, does not coagulate, when suddenly cooled, as in cold setting. But the fact that the cream separates best when the milk is set warm immediately after being drawn from the cow is sufficient for all practical purposes, whatever may be the philosophy of it.

Mr. Howe, like many others, thinks much cream is spoiled by not being properly ripened; but his ideas of ripening do not tally with some of the recent Western notions on the subject, it being insisted that souring is ripening, and lately that exclusion from the air and avoidance of all stirring are necessary. He says: "It will take at least two hours steady stirring on a vat of cream in the summer and twice as long in the winter. The more you stir the cream, the finer the flavor of the butter will be, and clearer from buttermilk." He adds that "nothing but stirring will ever even up and bring out a high, uniform flavor from the 500 different kinds of cream that come into a gathered creamery." This is not in accord with the latest Western teaching, but it may be right, notwithstanding. It looks like ripening cream by oxidizing it, against which theory we have never seen what we consider a valid objection. Opinions based on imperfect experiments and prejudices amount to nothing. The indirect evidences in favor of oxidizing cream are numerous.

But he gives this sensible caution: "When you know your own method and are making a success of it, getting the top of the market, stick to the way you are acquainted with, for if you change part of your system, you will probably have to change the whole." Such change is likely to involve the expense of new apparatus and the cost of throwing away the old. Unless future economy will warrant this, there is no sense in changing from a method that insures success; and when a change is made, it should be attended by strong guarantee of success.

Mr. Howe indulges in another idea which is opposed to the teachings of the Western advocates of the creamery. He declares: "If the farmers, or dairymen, rather, will fix a room they can keep cool in summer and warm in winter, to keep the milk, cream and butter in—if they will take the same care as the creamery and study their work—they can make just as good or better butter, and get just as good or better prices in the same market." This is philosophically true, and in most cases practically so. The private dairymen can control conditions as no creamy man can; and, without such control, the best results are impossible. Besides, doing the work at home gives employment to members of the family who will probably be better paid at this than at any other farm work. They are pretty sure to have to work anyway, and shifting the burden from one shoulder to the other, or from one kind of work to another, is not getting rid of it. Where there is a mortgage to lift, as is too often the case, all must do something to help. Is there anything on the farm that pays better than work in the dairy? There is a great deal of gush and

bosh among the zealous advocates of the creamery about its lifting the burdens from the shoulders of the family, but we notice that others are put into their places—and they may be harder to bear.

Milk for Chickens.

It is not every one who is aware that hens are very fond of milk, which is as good for them as it is for pigs. Mix a little corn meal with skimmed milk, and you have a luxury for chickens. One brought up on a farm, where an open swallow-barrel was the order of the day, will remember many and many a hen drowned in it—a pretty good proof that the contents were relishable, or the hens would not have sacrificed their lives in trying to get them. Hens are fond of loppered milk, which is excellent for them; but of course they need other more condensed and solid food in addition. If you have hens—every farmer and dairymen ought to have a few—arrange to give them a supply of skimmed milk. They will take it with the pigs, if they can get at the trough; but this is not the best way to feed them. Give them a trough by themselves, where they will not be molested, nor molest anything else.

Baled Ensilage.

We see it announced that an Eastern man has patented a process for baling ensilage and delivering it whenever needed for feeding stock. Why not? It would be a nice thing for the family cow in the city—provided that the ensilage can be so put up that it will not take harm by exposure to the air. It ferments very rapidly and changes color on exposure. This is the evil to be overcome—if the ensilage cannot be delivered daily, like our milk! The soldier the bale, of course the less the injury. Perhaps some kind of cheap envelop may be devised. This is a new idea, and not be sneered at in this progressive age.

Veterinary Department

Conducted by Prof. Robert Jennings, Veterinary Surgeon. Professional advice through the columns of the Michigan Farmer to all regular subscribers. The full name and address of the subscriber should be given when addressing the author.

The symptoms should be accurately described to ensure correct treatment. No questions unanswered.

Address, Private address, No. 201 First St., Detroit, Mich.

Answer.—The swollen stifle in your colt is due to over secretion of the synovial fluid, or synovial oil, from injury or constitutional causes. This case is one requiring the assistance of a competent veterinary surgeon. But we fear there is too much alteration of structure for even he to be of much service at this late date.

Bony or Ossific Tumor on the Leg of a Filly.

Four Towns, Mich., Sept. 23, 1859. Veterinary Editor of the Michigan Farmer.

I have a great many Phercheron colts, one year old, a month, that has a bunch on its stifle joint about as large as one half of a large apple; it came on just winter. The mare and colt were running out with other colts in the day time; could not see that it had been kicked. I went to a farrier with it; he said blister it, but I could not see that it did any good. Then he advised using tincture of iodine; he had used four ounces. It had reduced but little. He then said to give it a little oil, for a while, thinks it will outrun. I am a little anxious, as it is a very valuable colt. It is about ten days since I stopped using iodine. The colt was a little lame at first, and I think is a little lame now when she trots. The farrier calls it dropsy of the joint. Respectfully, W. H. RICE.

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dissolve in one pint of rain water; apply with a clean soft piece of sponge; (do not use a syringe,) the animal will winkle it into the eye; repeat twice or three times a day. Give no hay or grain for several days. Give the following internally: Socotrine aloes, pulv., two ounces; Jamaica ginger, pulv., one ounce; mix and divide into twelve powders; give one three times a day. Mix to paste with syrup and smear on the tongue.

Commercial.

DETROIT WHOLESALE MARKET.

DETROIT, September 27, 1859.

FLOUR.—Minnesota brands are higher. No other changes. Quotations on car-load lots are as follows:

Michigan roller process..... 3 90 4 00
Michigan patent, old..... 4 30 4 40
Michigan, bakers..... 3 65 3 75
Michigan, patent..... 3 65 3 75
Rye..... 2 70 2 80
Low grades..... 2 25 2 35

WHEAT.—Market has ruled more active the past week, and values are higher on both spot and futures. Closing quotations to day were as follows: No. 1 white, 52 1/2c; No. 2 red, 52 1/2c; No. 3 red, 73 1/2c; rejected, red, 61c. Futures No. 3 red, 73 1/2c; rejected, red, 61c. Futures No. 2 red, for September at 83 1/2c; October at 82 1/2c, and December at 82 1/2c per bushel.

RYE.—Steady at 14 1/2c per bushel.

BARLEY.—Quoted at 95c or 15 per cent.

FRHD.—Bran quoted at 10 50c or 11 10c.

WINTER WHEAT MIDDLES: At \$10 50c or 12 10c.

CLOVER SEED.—Lower; quoted at \$4 00 for October and \$4 05 for November. Market weak. Spot quoted at \$4 05 for prime.

RYE—Steady at 14 1/2c per bushel.

BUTTER.—No fancy dairy in the market.

The range for fair to good dairy is 18 1/2c to 20c.

CHEDDAR.—Quoted at 92 1/2c for Michigan full cream, and 93 1/2c for New York.

EGGS.—The market is firm at 17 1/2c.

RECEIPTS.—Quoted at 14 1/2c per bushel.

HONEY.—Quoted at 13 1/2c for comb. Extracted, 90c per bushel.

FOREIGN FRUITS.—Lemons, Messinas, 90c per box; 127 50c; oranges, Messinas, 90c per box; bananas, yellow, 1 bush., \$1 00 50c 50
Figs, 112 1/2c for layers, 15 1/2c for fancy. Coconuts, per 100, \$1 05c. Persian dates, 55c 60c per box.

SALT.—Michigan, 80c per bbl. in car lots, or 80c in 10-bbl. lots; dairy, \$1 00 50c 10 per bbl.

BEEF.—Scarce and firm at 28 1/2c.

POOTATOS.—Steady at \$1 50 per bbl. Receipts.

APPLE.—Marked firm at \$1 50 21 75 per bushel.

PEACHES.—Sales were at 40 20c per peck and \$1 50 25 50 per bushel, for white, and at 60 25c per peck and \$2 25 00 per bushel for yellow, the top figures representing "extras" only.

GRAPES.—The market was liberal supplied with Concords and Catawbas. The inquiry was limited, and island receipts sold at 30c for Concord and 45c for Catawbas per lb.

POULTRY.—Lived quoted as follows: Old roosters, 4 1/2c; fowls, 7 1/2c; spring chicks, 80c per dozen; No. 1, 4 1/2c; No. 2, 3c; real kip, No. 1, 3c; runners and No. 2, 2 1/2c; sheepskins, 50c 60c 25 as to quantity of wool.

HAT.—Quoted at \$8 21 per ton for new baled in car lots.

BEANS.—Quoted at \$1 00 50c per bushel for picky mediums. New unpicked beans at \$1 40 50c per bushel.

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